

MULTIPLE MAGNET TRANSDUCER

ABSTRACT OF THE DISCLOSURE

A dynamic magnet system, particularly useful for electrical generation, employs multiple magnets in polar opposition to each other and having a critical angle of displacement from a horizontal static position of less than 1 degree, to induce an electrical signal in one or more surrounding coils. The magnets interact with each other to yield multiple modes of oscillation and a greater range of response to applied inputs than is achievable with a single magnet system. A lubricant for the magnets is preferably a ferrofluid that establishes a static coefficient of friction between the magnets and their support structure less than about 0.02, with a viscosity less than 10 centipoise. The magnets can be oriented for movement in a primarily horizontal direction and are adaptable to numerous different kinds of support structures, including ring-shaped.